

# 4-in-1 Evacuation sign

## Data Sheet

For Series: OT-ES809-Li



Scan for video link  
<https://youtu.be/ZbFhXgYXyNc>



Scan for IEC60598-2-22:2021  
[http://otcind.net/download/iec60598\\_2\\_22\\_2021.pdf](http://otcind.net/download/iec60598_2_22_2021.pdf)

**OTC IND CO., LTD**

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Dear partners,

\* Thanks for Choosing OTC LED emergency products for your projects.

OTC always pursue high quality, steady quality products, competitive price and one-stop customer service, and offer enjoyable installation experience.

\* All the OTC emergency lamp with 5 years quality guarantee (Battery 3 years) . If any doubts/ questions, please contact OTC project support team directly by email support@otcind.net . You will get solutions in 7~24 hours rapidly.

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## 1 Security related information

- Installation should be carried out in accordance with the latest edition of the I.E.E. Wiring regulations and taking into consideration the latest building regulations.
- Ensure that all electrical connections are tight with no loose strands, including factory made connections.
- Ensure there is adequate free air circulation of at least 100mm around the luminaire. It is the installer's responsibility to consider fire risk and take appropriate precautions.
- A separate enclosure may be required if this unit is to be used in dusty and wet environments.

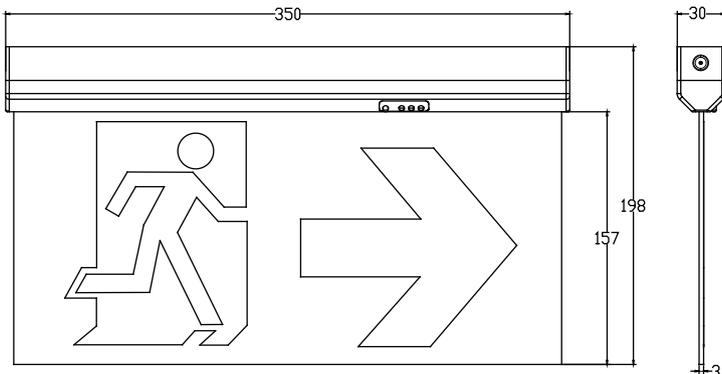
Q.C. date label, installation in an improper working environment or installation not according to the current edition of the I.E.E. Wiring Regulations . The guarantee is also invalidated if the luminaire has been I.R. tested. Should this product fail during the guarantee period it will be replaced free of charge, subject to correct installation and return of the faulty unit. We do not accept responsibility for any installation costs associated with the replacement of this product. Your statutory rights are not affected. We reserve the right to alter specifications without prior notice.

## 2 Packing list



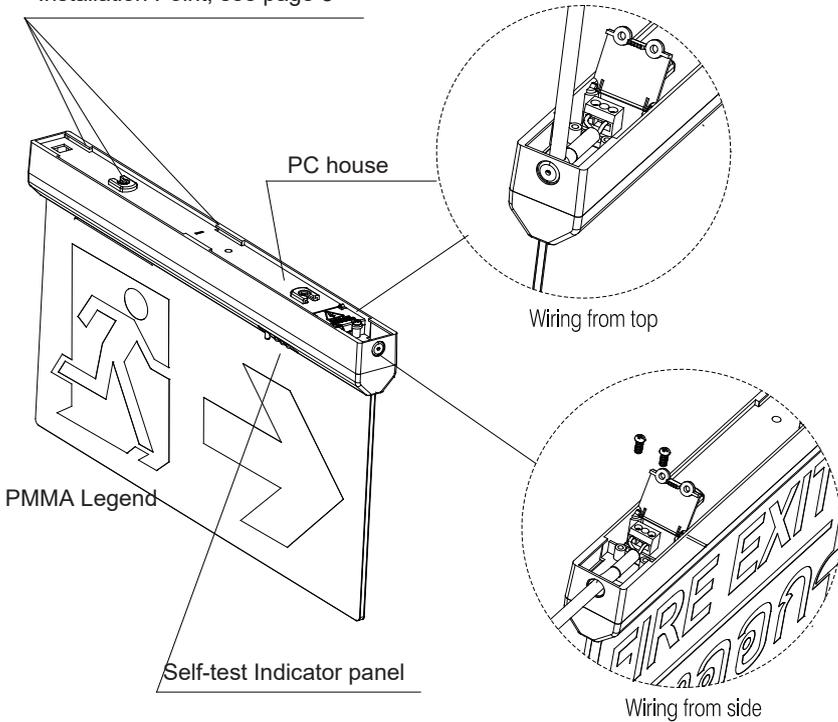
### 3 Basic Parameters

Model	Art Nr. OT- ES809- Li		
	ES809	ES809ST	ES809RST
Material	polycarbonate + PMMA		
LED Chips	20 pcs SMD4014 chips		
Color Rendering Index	>80		
Degree of protection	IP20		
Input Voltage	AC200- 240V 50/60HZ		
Input power	3.0W		
Power factor	>0.5		
Emergency change over	<0.5S		
LED lifespan	50,000 hrs		
Emergency Standard	60598 - 2- 22:2021		
Legend standard	ISO 7010:2019		
The Photonic	ISO 3864 - 4:2011 / EN 1838 - 2013		
Emergency Pack	3.2V 1.6Ah LiFePO <sub>4</sub> OR 3.7V 2.0Ah Li(NiCoMn)O <sub>2</sub>		
Emergency time	3 Hours		
Test	Manual Test	Self- test	Remote self test
Mains indicator	NO	RED	
Charging indicator	Green		
Faulty indicator	NO	RED	
Charging details	300mA, Full charged in 12 hours		
Disharging details	250mA, 3 hours emergency time		
Luminous Flux(Mains)	100LM		
Luminous Flux(EM)	100LM		



## 4 General construction

Installation Point, see page 8



### 4# . Rest mode & storage

#### 4#.1 This luminaire combined rest mode.

When the AC supply failure / cut down. The EM LED on.

- If the battery over discharged, The luminaire will changeover rest mode automatically.
- You can click the ④ test button. and the luminaire also can changeover rest mode.

**ES809-RST also can press "Auxiliary" switch for 2 second to changeover rest mode.**

#### 4#.2 Storage & transportation

- Make sure the luminaire in rest mode
- Keep the storage temperature 0~30°C
- Keep away from inflammables; keep dry & ventilation.

5 Self / remote test system(ES809ST &ES809RST only)

5.1 Testing (If no failure)

5.1.1. Manual function test.

ES809/ES809–ST/ES809–RST: Active the ④ test button.  
 ES809RST:Press “TEST” switch on controller.

- a) The ② Charging indicator OFF.
- b) The Emergency function ON.
- c) The test will cut off the mains

5.1.2 Monthly test.

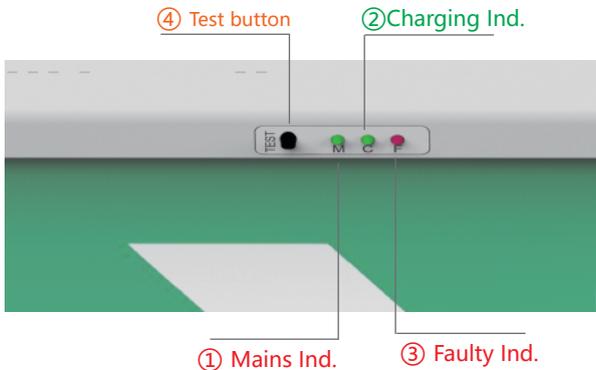
ES809–ST/ES809–RST: Active the ④ test button for 5 second;  
 ES809RST: Press the “Monthly TEST” switch on controller;  
 or the lamp installed every 30 days.

- a) The ② Charging indicator will flash in 1Hz for 128s;
- b) The Emergency function ON;
- c) The test finished and back to standby mode.

5.1.3 Annual test.

ES809–ST/ES809–RST: Active the ④ test button for 7 second;  
 ES809RST: Press the “Annual TEST switch on controller;  
 or the lamp installed every 180 days.

- a) The ② Charging indicator will flash in 2Hz for 3hours;
- b) The charging will be cut off & emergency function ON 3hours;
- c) The lamp back to standby mode after test.



Remote test controller  
OT-ES809RST only

## 5.2 Testing (If any failure, Only ES809-ST/RST)

- 5.2.1 Battery failure:  Monitored once per hour. The ③ faulty indicator will flash in 1 Hz if the battery failure any time.
- 5.2.2 LED load failure:  If press test button, or the luminary self-monthly test. The ③ faulty indicator will flash in 2 Hz if LED load failure.
- 5.2.3 Duration failure:  Only in Annual self-test. The ③ faulty indicator will turn on constantly if the Battery can not last 3 hours

## 6 Emergency control logic

### The emergency function control logic

Operation	Mains indicator (Green)		Charging indicator		Faulty Indicator (RED)		Emergency LED Maintained		Emergency LED Non-Maintained	
	1 S	1 S	1 S	1 S	1 S	1 S	1 S	1 S	1 S	1 S
Normal charging	Constantly on				OFF		Constantly on		OFF	
Normal full charged	Constantly on		Constantly on		OFF		Constantly on		OFF	
Normal AC Failure	OFF		OFF		OFF		Constantly on		Constantly on	
Manual test	OFF		OFF		OFF		Constantly on		Constantly on	
Monthly self-test	OFF				OFF		Constantly on		Constantly on	
Annual self-test	OFF				OFF		Constantly on		Constantly on	
Battery circuit failure	Constantly on		OFF				Constantly on		OFF	
Light source failure	Constantly on		Constantly on				OFF		OFF	
Duration test failure	Constantly on		Constantly on		Constantly on		Constantly on		OFF	



Before



After

No Key switch, No Harry, No ladders  
Safe / Easy / Convenient

## 7 Emergency function & Wiring

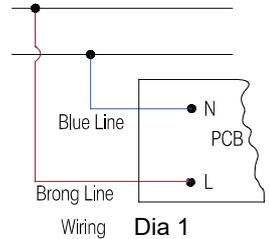
### ADDITIONAL INFORMATION - COMPONENT REPLACEMENT

- The luminaire contains no user replaceable components other than the battery pack contained in emergency versions.
- The battery has a 4 year service life provided it is operated and maintained by regular testing, as detailed in this Usermanual. Failure to maintain or change the battery may result in reduced duration in emergency mode.

#### 7.1 Emergency function test before installation

7.1.1. Chose the cable wiring way according page 4.  
Connect the AC cable according to the Dia 1.

- The Mains indicator on,
- The charging indicator on,
- The Faulty indicator off,



7.1.2. Press the test button, The charging indicator off, and emergency function activated.

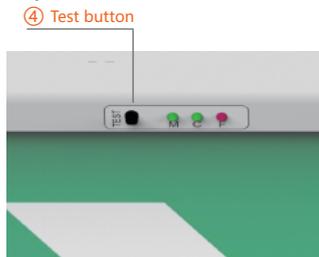
7.1.3. Cut off the AC power supply, The mains indicator & Charging indicator off and emergency function on.

#### 7.2 Maintained & non-maintained mode changeover (ST & RST only)

a) The OT-ES809ST/RST was preset Maintained mode.



Method 2  
ES809-RST only



Method 1

Press the ④ test button constantly for 11 seconds

b) AC power on

Method 1: Press the ④ test button constantly for 11 seconds

Method 2: Press the “Auxiliary” switch on remote test controller for 6 seconds (ES809-RST only).

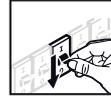
The OT-ES809 will change the Emergency work mode.

## 8 Installation guide

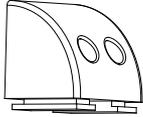


**Caution**

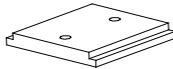
1. All OTC emergency lights are designed for projects. Only qualified electrician can install or maintain it.
2. The mains have to be off during the installation or maintenance.
3. Keep the product far from heat sources and in a well ventilated area.



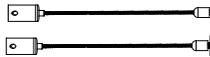
### Installation pack



The Wall mounting Accessory



Ceiling mounting Accessory



Hanging mounting Accessory \*2

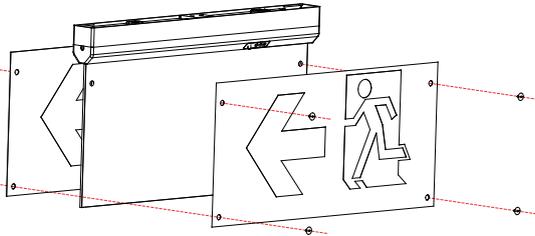
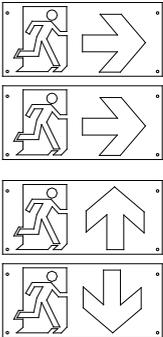


Alligator Anchor\*2



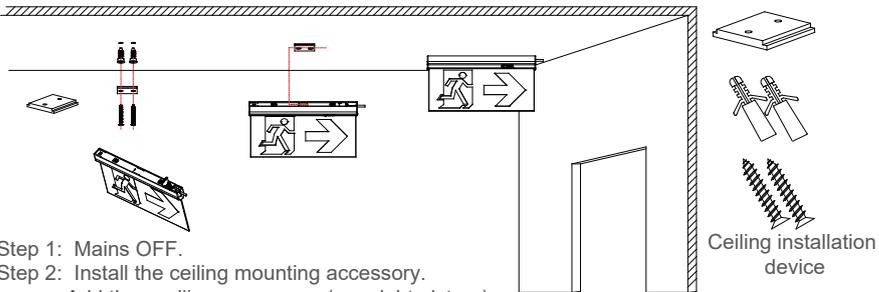
4\*30 Screws \* 2

### Install the PVC Legend



- 1) Choose the right PVC legend.
- 2) Install the legend by clips.

### Installation 1: Ceiling mounting

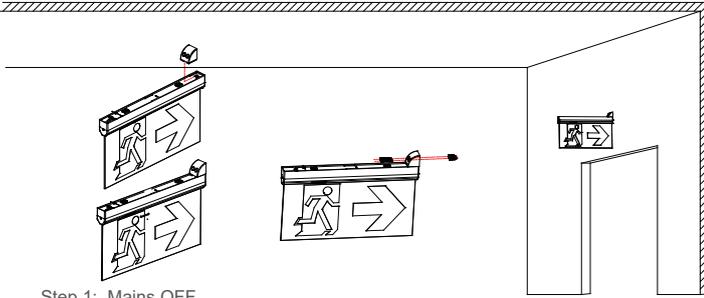


- Step 1: Mains OFF.
- Step 2: Install the ceiling mounting accessory.  
Add the auxiliary accessory (see right picture)  
If the ceiling is not flat.
- Step 3: Wiring The cable from side hole recommend  
and testing accoring Page 7
- Step 4: Fix the sign on the ceiling
- Step 5: Mains ON

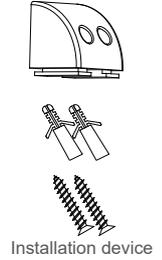
Ceiling installation device

INNOVATING YOUR PROJECTS

Installation 2: Side wall mounting

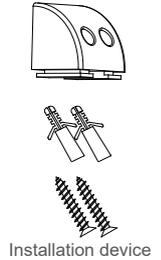
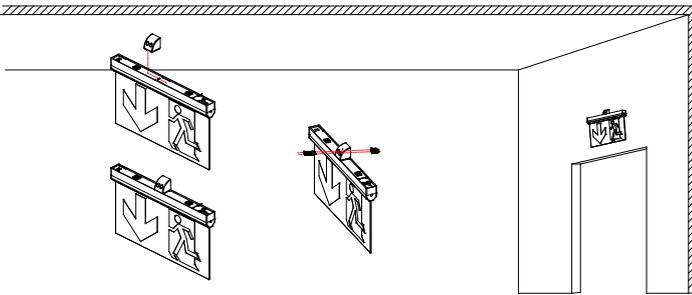


- Step 1: Mains OFF.
- Step 2: Install the wall mounting accessory
- Step 3: Fix the sign on the wall
- Step 4: Wiring and testing accoring Page 7
- Step 5: Mains ON



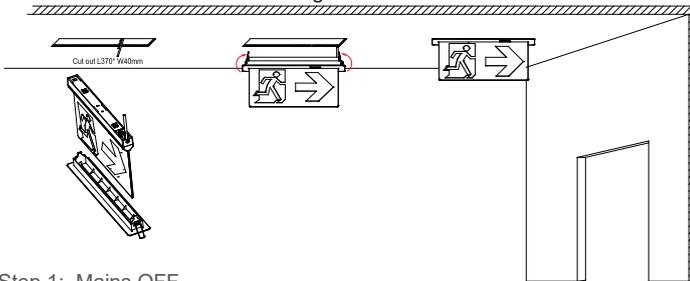
Installation device

Installation 3: Wall mounting

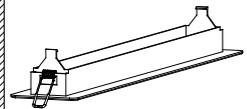


Installation device

Installation 4: Recessed mounting

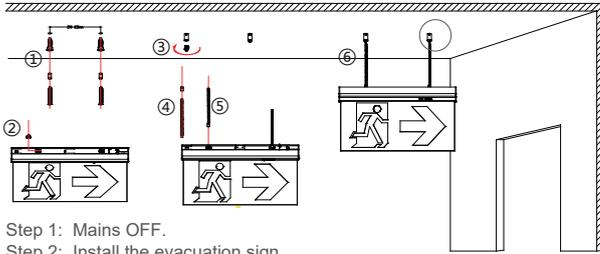


- Step 1: Mains OFF.
- Step 2: Cut the square hole on Ceiling.
- Step 3: Fix the Exit light into the Ceiling accessory
- Step 4: Install the Exit light.
- Step 5: Mains ON



Recessed installation device  
(Not included)

### Installation 5: Hanging



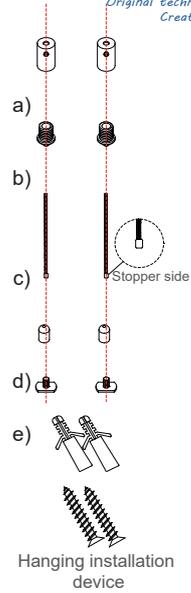
Step 1: Mains OFF.

Step 2: Install the evacuation sign

- ① Install the a) by screws, distance 180-200mm recommend.
- ② Install e) into the base of sign.
- ③ Install b) into a) by screwing.
- ④ Inert the c) string into d) from no stopper side.
- ⑤ Install c)+d) on to e) according the drawing by screwing.
- ⑥ Inert the string into b) set the length accrodng Pic8.1.

Step 3: Wiring and testing accoring Page 7

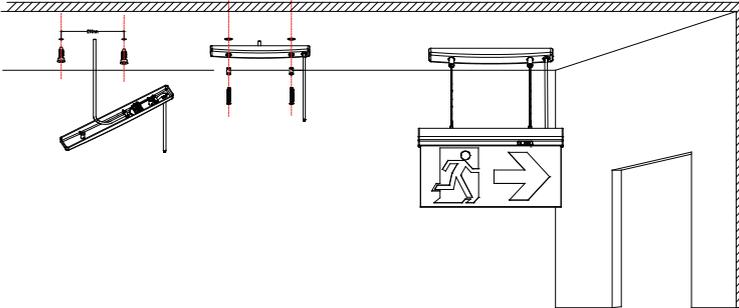
Step 4: Mains ON



Hanging installation device

Pic8.1

### Installation 5: Hanging with canopy



Step 1: Mains OFF.

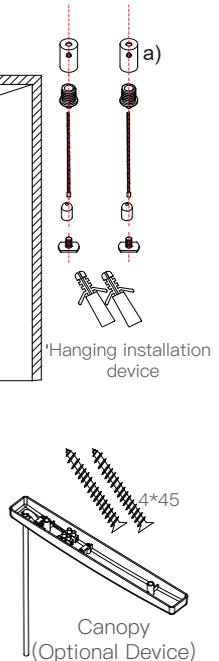
Step 2: Connect the power cable to canopy.

Step 3: Fix the canopy together with a) of hanging accessory to the ceiling by 4\*45mm screws

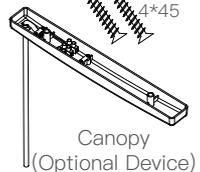
Step 4: Install the ES809 same as ↑ Installation 5 ↑.

Step 5: Wiring and test accoring page 7

Step 6: Mains ON



Hanging installation device



Canopy  
(Optional Device)

9 EM inspection record table

Luminaire emergency inspection record

month	Test	First Year		Second Year		Third Year		Fourth Year		Fifth Year	
		Signed	Date	Signed	Date	Signed	Date	Signed	Date	Signed	Date
1	Functional										
2	Functional										
3	Functional										
4	Functional										
5	Functional										
6	1 hour										
7	Functional										
8	Functional										
9	Functional										
10	Functional										
11	Functional										
12	3 hours										

Installed By: ..... Luminaire NO.: .....

Installed Date: ..... Contact details: .....

Luminaire Locaton: ..... Contact details: .....

## 10 Cheap solutions DIY



**WARNING**

1. All OTC emergency lights are designed according to 60598-1 and 60598-2-22:2014 strictly. There is no trouble if you chose OTC products to bid projects, including project acceptance, monthly, annual inspections.

2. If you just need sell them online or install in your home & there is no professional project acceptance inspection, you can chose some cheaper solutions.

NO.	DIY Items	OTC default Solutions	Cheaper solutions	Dis-advantages
1	MOQ	No MOQ, 1pcs available	1000Pcs	
2	Material of house	PC Plastic	ABS	Not fire resist
3	VOID			
4	EM driver	Isolated	CBB solution	Can not IEC61347-2-7 compliant
5	Lumen output	Constant brightness	Bright at beginning Waker by the end	Can not IEC60598-2-22:2014, 22.17.1 compliant
6	Duration time	180mins	90mins or others	According local fire department requests
7	Installation pack	Installation pack in Page2	Only required installation facilities	Not recommend if sell online.

**OTC only guarantee the EM function of luminaire if DIY !**

Please check the requests/standards with local fire department before making decision.

